



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD; Amendment 39-17883; AD 2014-13-07]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. This AD was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. This AD requires installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles. This AD also requires, for certain airplanes, an inspection to determine if sealant is applied, and corrective actions if necessary. We are issuing this AD to prevent, in case of a direct lightning strike to the tail strobe light, damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2012-0863; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6418; fax: 425-917-6590; email: [marie.hogestad@faa.gov](mailto:marie.hogestad@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. The SNPRM published in the Federal Register on March 12, 2014 (79 FR 13934). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in

the Federal Register on September 6, 2012 (77 FR 54848). The NPRM proposed to require installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles. The NPRM was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. The SNPRM proposed to add, for certain airplanes, an inspection to determine if sealant is applied and corrective actions if necessary. We are issuing this AD to prevent, in case of a direct lightning strike to the tail strobe light, damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the SNPRM (79 FR 13934, March 12, 2014) or on the determination of the cost to the public.

### **Clarification**

We have changed the paragraph heading for paragraph (h) of this AD to more accurately reflect the required actions therein.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM (79 FR 13934, March 12, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (79 FR 13934, March 12, 2014).

## Costs of Compliance

We estimate that this AD affects 1,433 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation for Model 737-300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012 (396 U.S. registered airplanes)	Up to 32 work-hours X \$85 per hour = Up to \$2,720	Up to \$14,886	Up to \$17,606	Up to \$6,971,976
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 1, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (465 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$4,422	Up to \$6,207	Up to \$2,886,255
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 2, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (83 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$2,496	Up to \$4,281	Up to \$355,323
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 3, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (25 U.S. registered airplanes)	Up to 20 work-hours X \$85 per hour = Up to \$1,700	Up to \$4,478	Up to \$6,178	Up to \$154,450

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 4, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (464 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$4,423	Up to \$6,208	Up to \$2,880,512
Inspection for Model 737-600, -700, -700C, -800, -900 and -900ER series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (up to 1,037 U.S. registered airplanes)	Up to 2 work-hours X \$85 per hour = Up to \$170	\$0	Up to \$170	Up to \$176,290

We estimate the following cost to apply sealant, based on the results of the inspection. We have no way of determining the number of aircraft that might need this sealant application:

#### **On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Sealant application	1 work-hour X \$85 per hour = \$85	Negligible	\$85

The parts cost to apply sealant between the disconnect bracket and the receptacle connector D44582J, and on the fasteners is not included in the estimate. It is considered “Parts & Materials Supplied by the Operator,” which is referenced in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

According to the manufacturer, all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control

warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2014-13-07 The Boeing Company:** Amendment 39-17883; Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to The Boeing Company airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 737-300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

(2) Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

(3) Installation of Supplemental Type Certificate (STC) ST00830SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/$FILE/ST00830SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 33, Lights.

**(e) Unsafe Condition**

This AD was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. We are issuing this AD to prevent, in case of a direct lightning strike to the tail strobe light, damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Tail Strobe Light Installation for Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes**

For Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes on which the actions specified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, have not been done before the effective date of this AD: Within 72 months after the effective date of this AD, install a new tail strobe light housing, install a new disconnect bracket, and change the wire bundles, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, except as required by paragraphs (g)(1) and (g)(2) of this AD.



(1) Where Figure 8, Flag Note 3, of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, refers to solder sleeve BACS13CT3C, the shield splice contained in splice kit D-150-0168 may be used in lieu of solder sleeve (BACS13CT3C), provided a ground wire is used.

Note 1 to paragraph (g)(1) of this AD: Guidance for wire-type information for the ground wires may be found in Boeing Standard Wiring Practices Manual (SWPM) D6-54446, Section 20-10-15.

(2) Where the second sentence of note (c) of Figure 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, specifies to “Maintain a minimum of 1.7 Dimensions fastener edge margin on the disconnect bracket and the stiffener,” instead “Maintain a minimum of 1.7 diameter fastener edge margin on the disconnect bracket and the stiffener.”

**(h) Inspection and Corrective Actions for Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes**

For Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, on which the actions specified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, have been done before the effective date of this AD: Within 72 months after the effective date of this AD, do a general visual inspection to ensure there is fillet sealant between the disconnect bracket and the receptacle connector D44582J, and on the fasteners, and do all applicable corrective actions, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013. Do all applicable corrective actions before further flight.

**(i) Tail Strobe Light Installation for Model 737-300, -400, and -500 Series Airplanes**

For Model 737-300, -400, and -500 series airplanes: Within 72 months after the effective date of this AD, install a new tail strobe light housing, install a new disconnect bracket, and change the wire bundles, in accordance with the Accomplishment

Instructions of Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(k) Related Information**

(1) For more information about this AD, contact Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6418; fax: 425-917-6590; email: [marie.hogestad@faa.gov](mailto:marie.hogestad@faa.gov).

(2) For service information identified in this AD that is not incorporated by reference in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services

Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

**(I) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

(ii) Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 19, 2014.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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